JOINT PROGRAM EXECUTIVE OFFICER and the JOINT TACTICAL RADIO SYSTEM:

The Joint Tactical Radio System (JTRS) was initiated in early 1997 to improve and consolidate the Services' pursuit of separate solutions to replace existing legacy radios in the Department of Defense (DoD) inventory. Since its inception, JTRS evolved from a loosely-associated group of radio replacement programs to an integrated effort to network multiple weapon system platforms and forward combat units where it matters most - the last tactical mile. In 2005, to better achieve this goal, JTRS was restructured under the leadership of a Joint Program Executive Officer headquartered in San Diego, California. JTRS will link the power of the Global Information Grid (GIG) to the warfighter in applying fire effects and achieving overall battlefield superiority. By developing and implementing an open architecture of cutting-edge radio waveform technology, multiple radio types (e.g., handheld, ground-mobile, airborne, maritime, etc.) are now allowed to communicate with one another. The ultimate goal is to produce a family of interoperable, modular, software-defined radios that operate as nodes in a network to ensure secure wireless communication and networking services for mobile and fixed forces. These goals extend to U.S. allies, joint and coalition partners, and, in time, disaster response personnel.

SIGNIFICANCE of the JTRS PROGRAM:

JTRS is critical to serving as the "last tactical mile" connecting the warfighter on the ground into the networking capabilities that are delivered through the GIG. As a critical component of the DoD network-centric transformation effort, JTRS provides:

- Ad-hoc networked communications on-the-move and at the tactical edge to support information sharing and combat readiness - the most challenging requirement, representing the highest capability payoff
- Interoperability through a common set of shared open system standards and applications, including the Software Communications Architecture
- Cost savings via an 'open' Enterprise Business Model promoting competition
- Tactical voice, video, and data battlefield communications when reachback is not possible

PROGRAM ACCOMPLISHMENTS:

- The JTRS Board of Directors approved Milestone B for the Airborne, Maritime, and Fixed Site (AMF) program and awarded a System Development and Demonstration contract in March 2008.
- The Multifunctional Information Distribution System (MIDS) program office has delivered its first lot of production transition terminals. Testing resulted in no significant integration issues and met all perfor mance objectives.
- Led by the Consolidated Interim Single-Channel Handheld Radio project under the Joint Ground Domain program office, JPEO executed the first DoD-wide, competitive, handheld tactical radio acquisition. This allows soldiers to be equipped now with the latest Joint, interoperable, and tactical radio technology.
- The Ground Mobile Radio (GMR) program office delivered Engineering Developmental Models (EDM) for field testing, while the Handheld, Manpack, and Small Form Fit (HMS) program office delivered pre-EDM units in support of the Army's Future Combat Systems (FCS) procurement. Subsequent to delivery, successful testing was conducted at the Army's Electronic Proving Ground in Fort Huachuca, Arizona.

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JTRS

Airborne, Maritime, and Fixed Site (AMF)

AMF JTRS includes a two-channel Small Airborne (SA) Joint Tactical Radio, a four-channel Maritime/Fixed Site (M/F) JTR, and common ancillaries to support platform integration. Increment 1 AMF-SA will support the UHF SATCOM, MUOS, WNW, SRW, and Link-16 waveforms and be integrated into a variety of airborne platforms including Army rotary wing and UAV aircraft, Air Force C-130s, and Navy E-2s. Increment 1 AMF-M/F will support the UHF SATCOM and MUOS waveforms and be integrated into maritime and fixed station platforms such as Navy ships and submarines, Air Force Command and Control (C2) Centers, and Navy Shore C2 installations.

Multifunctional Information Distribution System (MIDS)-JTRS

MIDS-JTRS is a wireless, jam-resistant, and secure information, digital and voice communications system that provides real time information and situational awareness to the warfighter operating in fast moving platforms (e.g., Navy F/A/18, Air Force F-22). A modular 4-channel radio, it provides Link-16, JAN-TE, voice, next generation data and communication terminals for joint and coalition tactical platforms. MIDS-JTRS represents an evolutionary development of the initial JTRS-compliant MIDS Low Volume Terminal while fitting in the same form factor.

Ground Mobile Radios (GMR)

JTRS GMR Increment 1, a software-definable, multi-channel, multimode communications system, can be reconfigured to emulate and interoperate with current force radios as well as operate new waveforms that have enhanced performance capabilities. GMR provides secure communications and enables simultaneous multimedia communications over independent channels to ground vehicle platforms such as: System Integrated Command Post System Carrier, Abrams Tank, Bradley Fighting Vehicle, High Mobility Multipurpose Wheeled Vehicle, Expeditionary Fighting Vehicle, and the Light Armored Vehicle. GMR will interoperate with current force equipment and waveforms currently used by civilian and military operations.

Handheld, Manpack, and Small Form Fit (HMS)

The future of tactical radio communications is being defined by the need for smaller, light-weight, and more powerful devices that are interoperable using a common software language. HMS is developing small form fit factors that provide tactical networking for soldier carried handheld and manpack radios, unmanned ground vehicles, munitions and sensors, and UAVs. These radios will enable cost-effective net-centric warfare to move beyond the command center to battlefield locations previously unreachable by legacy technologies.

Consolidated Interim Single-Channel Handheld Radios

Currently available are two handheld, single-channel, software-defined radios. These radios - the AN/PRC-148 and the AN/PRC-152 - enjoy interoperability with other military radios and commercial systems through their instantiation of legacy waveforms (e.g., SINCGARS, HaveQuick II). NSA Certified and considered "JTRS approved," they are presently deployed in combat, aiding U.S. warfighters in Iraq and Afghanistan.

Network Enterprise Domain (NED)

NED develops and delivers portable, interoperable, transformational networking waveforms (e.g., WNW, SRW, JAN-TE/TTNT, MUOS), Legacy Waveforms to maintain current force interoperability (e.g., UHF SATCOM, SINCGARS, EPLRS) and network management and enterprise services software to fully enable JTRS' mobile, ad hoc networking capability. NED products will produce the networking capability that allows U.S. warfighters from all military service branches to access and share relevant and timely information. This program is the heart of the interoperable networking capability of JTRS.